

REMARKS

Claim Objections

Claim 2 was objected to because of grammar informalities.

Response

5 Appropriate corrections have been made.

Claim Rejections – 35 U.S.C. 103(a)

Claims 1 and 6 – 8 were rejected under 35 U.S.C. 103(a) as being unpatentable over Smyth in view of the Applicant’s Admitted Prior Art (AAPA).

Response

10 Claim 1

The applicant believes that Smyth fails to teach the pertinent features of Claim 1, in particular, “selecting subband samples from the plurality of subband samples as reference sample data” “determining the block length of the window according to an energy sum of the frequency subbands of the reference sample data in a predetermined frequency range” and “performing a transform process to multiply the plurality of frequency subbands by the plurality of weighted values of the window”. It is noted by the applicant that only one subband sample data is selected as ‘reference data’: “Both the input samples $x(n)$ and the estimated difference samples $ed(n)$ are buffered for each subband separately” [Col. 17, lines 46 – 48], “Depending on the value of PMODE either the contents, i.e. the subframe, of the subband sample buffer $x(n)$ or that of the estimated difference buffer $ed(n)$ are copied into a transient analysis buffer” [Col. 18, lines 52 – 55]. The applicant further disagrees with the use of the term reference data to describe the selection process of Smyth, as Smyth teaches selecting **all** data in a subbuffer, and therefore does not teach selecting samples. Furthermore, Smyth does not teach determining an energy sum of the frequency subbands of the reference sample data. Smyth teaches determining a **ratio** of energies of a current sub-subframe to a previous sub-subframe: “A sub-subframe is declared transient if the ratio of its energy over the preceding sub-buffer exceeds a transient threshold (TT), and the energy in the preceding sub-subframe is below a

pre-transient threshold (PTT) [Col. 19, lines 19 – 22]. Moreover, Smyth does not teach multiplying the **plurality** of frequency subbands by the plurality of weighted values. Smyth explicitly teaches in Col. 19, line 34 that, “TT and PTT are individually set for each subband”. Therefore the applicant contends that Smyth teaches against using energy 5 of a smaller sample of data to adjust a plurality of frequency subbands. Furthermore, Smyth only teaches calculating weighted values (scale factors) when it is determined there is a transient: “If any sub-subframes are declared transient, two separate scale factors are generated for the analysis buffer, i.e. the current subframe. The first scale factor is calculated from samples in the sub-subframes preceding the transient 10 sub-subframe. The second scale factor is calculated from samples in the transient sub-subframe together with all proceeding sub-subframes” [Col. 18, line 66 – Col. 19, line 6]. As the applicant disagrees that Smyth teaches the pertinent features of Claim 1, a combination of the AAPA and Smyth would not result in the method disclosed in Claim 1. Claim 1 should therefore be found allowable over the prior art.

15 Claims 6 – 8

Claims 6 – 8 are dependent on Claim 1 and should be allowable if Claim 1 is found allowable.

Claims 2, 5, 9, 10 and 12 – 14 were rejected under 35 U.S.C. 103(a) as being 20 unpatentable over Smyth in view of the Applicant’s Admitted Prior Art (AAPA) and further in view of Hilpert.

Response

Claims 2 and 5

Claims 2 and 5 are dependent on Claim 1. As the applicant believes Claim 1 has 25 been placed in a position for allowance, claims 2 and 5 should also be found allowable.

Claim 9

The Examiner states that Hilpert teaches the limitation of Claim 9, namely that an energy sum is compared to a first threshold, in order to determine whether a transient

exists. The applicant disagrees, however. Hilpert teaches that, in order for an energy **ratio** to be utilized, a first term must be greater than a threshold: “The last term of equation (3) describes a comparison of the current energy of the high-pass-filtered discrete-time audio signal in the current segment with a filter minimum energy E_{minF} . This comparison has the
5 effect that the criterion A is only taken into account if the current segment energy exceeds a minimum energy” [Col. 8, lines 41 – 46]. If this inequality is not true, then the energy ratio cannot be calculated. This does not mean that a transient does not exist. Claim 9 utilizes the energy sum and first threshold in order to determine whether a transient exists.
10 The applicant disagrees that Hilpert has this aim in mind, and therefore attests it is unreasonable to utilize this comparison in order to detect transients, as such an objective is neither taught nor suggested by Hilpert. Furthermore, as detailed in the response to Claim 1, the applicant believes that Smyth neither teaches nor suggests the pertinent features of the present invention. As Claim 9 contains similar limitations to Claim 1, the applicant therefore asserts that neither Smyth nor Hilpert teach pertinent features of Claim
15 9, and therefore request that the claim rejection be withdrawn.

Claims 10 and 12 – 14

Claims 10 and 12 – 14 are dependent on Claim 9. As the applicant believes Claim 9 has been placed in a position for allowance, claims 10 and 12 – 14 should also be found allowable.

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Claims 3, 4 and 11 were rejected under 35 U.S.C. 103(a) as being unpatentable over Smyth in view of the Applicant’s Admitted Prior Art (AAPA) and Hilpert and further in view of Davidson.

Response

25 Claims 3 and 4

Claims 3 and 4 are dependent on Claim 1. As the applicant believes Claim 1 has been placed in a position for allowance, claims 3 and 4 should also be found allowable.

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Claim 11

Claim 11 is dependent on Claim 9. As the applicant believes Claim 9 has been placed in a position for allowance, Claim 11 should also be found allowable.

5 Claims 15, 16, 19, 20 and 22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Smyth in view of Hilpert.

Response

Claim 15

For the reasons detailed in the responses to claims 1 and 9, the applicant believes
10 that neither Smyth nor Hilpert teach the pertinent features of Claim 15, and Claim 15 should therefore be found allowable over the prior art.

Claim 16

Claim 16 is dependent on Claim 15. As the applicant believes Claim 15 has been placed in a position for allowance, Claim 16 should also be found allowable.

15 Claim 19

For the reasons detailed in the responses to claims 1 and 9, the applicant believes that neither Smyth nor Hilpert teach the pertinent features of Claim 19, and Claim 19 should therefore be found allowable over the prior art.

Claims 20 and 22

20 Claims 20 and 22 are dependent on Claim 19. As the applicant believes Claim 19 has been placed in a position for allowance, claims 20 and 22 should also be found allowable.

Claims 17, 18 and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over Smyth in view of Hilpert and further in view of Davidson.

25 Response

Claims 17 and 18

Claims 17 and 18 are dependent on Claim 15. As the applicant believes Claim 15 has been placed in a position for allowance, claims 17 and 18 should also be found allowable.

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Claim 21

Claim 21 is dependent on Claim 19. As the applicant believes Claim 19 has been placed in a position for allowance, Claim 21 should also be found allowable.

5 **Conclusion:**

Thus, all pending claims are submitted to be in condition for allowance with respect to the cited art for at least the reasons presented above. The Examiner is encouraged to telephone the undersigned if there are informalities that can be resolved in a phone conversation, or if the Examiner has any ideas or suggestions for further advancing the 10 prosecution of this case.

Sincerely yours,

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Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)